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CERTIFIED MAIL - RETURN RECEIPT REQUESTED

June 21, 1983

Ciba Geigy
RIDOO1194323
R-1B

Dr. James E. Crowley
Ciba-Geigy Corporation
Cranston Facility
180 Mill Street
Cranston, Rhode Island 02905

Reference: EPA I.D. Number RIDOO1194323

Dear Dr. Crowley:

EPA has conducted an initial review of Ciba-Geigy Corporation's application under the Resource Conservation and Recovery Act ("RCRA") for a permit to treat and store hazardous waste at the Cranston, Rhode Island facility. This phase of our review was conducted, pursuant to 40 CFR §124.3, to determine whether the information submitted in the permit application was sufficient under 40 §§§CFR 270.10, 270.13 and 270.14-270-29 to allow a more detailed technical review of the application.

We have determined that the application is deficient and have specified in the attachment additional information needed to make the application complete. Please submit the necessary information to respond to this attachment within 45 days of receipt of this request. Further processing of your permit application can not begin until this additional information is received.

After EPA determines that the application is complete, any additional informaiton requested will be limited to information necessary to clarify, modify, or supplement previously submitted material.

Your response to our comments may be in the form of a totally revised complete Part B application or revised pages which can be inserted into your original Part B submission.

If you choose to submit revised pages please provide the following information:

1) Page numbers should be shown for the entire application.
2) For each page submitted indicate if it is a revision to a page in the original submittal or a new page not contained in the original submittal.
3) Date or code each page, for example: 32(R-9/10/82) means page 32 revised September 1982.

CONCURRENCES

SYMBOL	SWPB	SWPB				
SURNAME	O'Brien	Boynton	Hiebner			
DATE	6/17/83	6/20/83	6/20/83			

SEMS DocID 667425

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PS Form 3811, Aug. 1978

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Dr. James Crowley
Ciba-Geigy Corp. - Cranston Fac.
180 Mill Street
Cranston, RI 02905 N.O.D.

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(Street or P. O. Box)

Boston, MA 02203
(City, State, and ZIP Code)

Attn: Mike O'Brien

All revisions to your Part B application must include a new certification with the appropriate signatures as required by 40 CFR §270.11. Additionally, if you wish to claim confidentiality on any new information please submit a claim at the time of submittal in accordance with 40 CFR §270.12.

Please note that the Rhode Island DEM will also be sending you a letter which identifies the additional information needed to comply with the DEM regulations. Due to differences in the Federal and State regulations, the DEM may identify concerns not noted in this letter.

If you have any questions concerning this notice, please contact Michael O'Brien of my staff at (617)223-4448.

Very truly yours,

Dennis Huebner, Chief
State Waste Programs Branch

Enclosure

cc: R.I. DEM, Attn: Thomas Wright

ATTACHMENT: Ciba-Geigy Corporation
EPA I.D. Number RID001194323
Permit Application, Notice of Deficiency
EPA Region I, State Waste Programs Branch

The following sections outline areas where the Ciba-Geigy Corporation permit application does not meet the information requirements for Part B of a RCRA permit application. These requirements are given in 40 CFR Part 270 and refer to standards for hazardous waste management facilities contained in 40 CFR Part 264. The comments specifically address the deficiencies in the permit application and reference the applicable sections of Part 270 and Part 264.

A. FACILITY DESCRIPTION

1) Topographic Map (270.14(b)(19)(i-xii)

The large foldout map appears to be the topographic map referred to as Appendix XI, yet it is not marked as such. If this is the case, it should be marked appropriately. The map is deficient in presenting the following information required by 270.14(b)(19):

a. N-S orientation

b. intake/discharge structures, sewers

c. loading, unloading areas

d. fire control, flood control

e. direction of stream flow

f. surrounding land uses

g. flood control or drainage barriers

h. run-off control systems

Also, while the map does identify the structures/buildings on the site by numbers, there is no legend to correlate the numbers with names of buildings. The applicant should include such a legend.

2) 100 Year Floodplain (270.14(11)(ii-v))

This facility appears to be partially located within a 100 year floodplain, yet it does not demonstrate compliance with requirements for facilities in 100 year floodplain

(270.14(b)(11)). The application must describe studies showing design of hazardous waste units and their flood-proofing and protection devices, or a flood plan detailing procedures for removing waste to safety in the event of a flood.

Also, in absence of fulfilling the requirements, the applicant must submit a compliance schedule for bringing facility into compliance with the regulations.

3) Traffic Information (270.14(b)(10))

The application must provide the following information:

a) estimate the volume of traffic or show traffic patterns around the facility.

b) list weight of trucks transporting hazardous waste versus the loadbearing capacity of the roads and bridges.

c) describe traffic control (i.e. turns, any one way streets, street lights/signs).

B. WASTE CHARACTERISTICS

1) Chemical and Physical Characteristics (270.14(b)(2), 264.13(a))

Included as Appendix I is an example of only the form used by the facility to describe the hazardous characteristics of the wastes generated. The application does not include the required reports on the specific chemical and physical analyses of the wastes it generates. Instead, the application states only that much of "that type of information" is confidential, therefore is not shown but is "available for Agency review at the plant." The facility has not, however, submitted a formal claim of confidentiality for this information with its permit application. The applicant, therefore, must submit completed sheets on each of the facility's wastes.

2) Waste Analysis Plan (270.14(b)(3), 264.13(b))

The application contains a section titled "Waste Analysis Plan" but the information contained in it is deficient according to the regulations. The Waste Analysis Plan must also include:

a) a statement indicating the the analysis of hazardous waste is accurate and up to date.

b) the rationales for choosing the analysis parameters shown on pages 5 and 6.

c) a list of sampling methods used to obtain a representative sample of each waste.

d) a description of the frequency at which analysis will be repeated for each waste.

The Waste Data Sheets shown in the application must contain a provision to record the date that the data was taken. Also, the applicant must identify which of the procedures for sampling and analysis referred to in the application are actually employed at the facility, or if they are all used, then state that all the procedures are used.

It appears that a page may be missing in this section. This would be the page which describes the methods used to test for the first 2 parameters shown on the sample "Waste Data Sheet" - physical state and water solubility.

C. PROCESS INFORMATION

1) Description of Containers (264.171 and 264.172)

There is a general description of the waste containers/ waste categories in Appendix VI, but there is no specific mention of the type of liner spec's, etc., for the containers which the facility actually uses. The application must provide documentation showing the compatibility of their wastes with the containers and indicate whether the containers used will be new, reused, recycled or reconditioned.

2) Container Management Practices (264.173)

The application must provide a complete description of container management practices, i.e., assurance that containers are not opened, handled or stored such that they could rupture or leak.

The following types of questions need to be answered:

a. Are containers kept closed during storage except when adding or subtracting wastes?

b. Are containers adequately separated for inspection? What are the aisle space dimensions and general storage arrangement?

The facility drawing must clearly indicate the storage arrangement or possible sources of open flames. In addition, there are no details on container loading/unloading practices including machinery, equipment and procedures to move containers.

3) Secondary Containment System (270.15, 264.175(b))

a. There is not sufficient information on the facility's system for holding leaks, spills or precipitation. First, it is unclear from looking at the two drawings where the drums are placed within the area and where the drum storage area actually is located. The applicant must provide detail on the collection system used.

b. The application must demonstrate that the base of the container storage area is sufficiently impervious to contain leaks, spills or precipitation (264.175(b)(1)). The information on the base should contain enough detail to show that the base can support the weight of the waste filled containers upon it, and show what types of materials are stored and that they are compatible with the base material.

c. The application must also state how the containers are protected from contact with any accumulated liquids (270.15(b)(2), 264.175(b)(2)). (It was mentioned in the application that during June 1982, 1 1/2 feet of standing water accumulated in the container storage area.) The description of the containment system should include a drawing or discussion of the grade and slope of the containment system base.

d. There must also be a description of the procedures undertaken for detecting and removing accumulated liquids from the containment system in a timely manner (270.15(a)(5), 264.175(b)(5)).

e. It is unclear from the application whether the secondary containment system is existing or proposed. If proposed, you must submit a proposed schedule for initiation and completion of construction.

4) Description of Tanks (270.16 and 264.191)

a. The application must describe the types of wastes contained in the tank, the specific gravity of liquid in the tank, and the maximum height of liquid level in the tank during storage.

b. More design detail must be provided on the foundation, structural support and pressure controls to assure the tank will not rupture or collapse. The specific A.P.I. design standard used should be identified.

c. Is the 5/16 inch tank thickness a current dimension or the original dimension? When was the thickness last measured and what was it?

d. The referred design drawings 131-1 and 131-2 were not included in the Part B submittal.

e. What is the tank design life?

5) Tank Corrosion and Erosion (270.16(b), 264.192(a))

a. The tank description must demonstrate the compatibility of the tank material or liner, if any, with the wastes stored for protection against accelerated corrosion, erosion, or abrasion.

6) Ignitable/Reactive Wastes (270.16(f), 264.198)

a. Documentation of compliance with the N.F.P.A. buffer zone requirements must be provided.

7) Tank Management Practices (270.16(d) and (e) and 264.192(b))

a. While a diagram of the storage tank is provided, there should be a detailed narrative accompanying the diagram, or some other means of demonstrating: that monitoring is done to ensure that the tank is operated according to design; which procedures are used to measure process variables such as temperature, pressure, flow level and specific gravity; what is the direction of flow of liquid; other engineering details. The location of the tank should be made clearer on the location diagram.

D. PROCEDURES TO PREVENT HAZARDS

1) 24 Hour Surveillance System (264.14(b)(1))

The facility must provide a diagram of location of security guards and access points (fences, gates controlled). Also, it is not clear as to whether the security system is in operation 24 hours/day.

2) General Inspection Requirements (264.15(a) and (b), 264.33)

The General Inspection procedures outlined in Appendix IV must be described in more detail. The inspection schedule must describe the equipment, devices and systems which will be inspected in both the drum storage and tank storage areas.

3) Container Inspection (264.174)

The application must contain an inspection schedule which details procedures for inspection of containers (i.e., methods to detect leaks or deterioration of containers, methods to determine integrity of containment system).

4) Tank Inspection (264.194(a) and (b))

The application must have a more detailed inspection schedule which describes inspection procedures for tanks - i.e., provide list of equipment and parts to be inspected, describe how inspection ensures detection of leaking, corrosion or errosion of tanks, how tank overfill control equipment are inspected daily, how inspection ensures the tank is being operated according to its design.

5) Remedial Action (264.15(c), 264.194(c) and 264.255

Procedures for ensuring that any deterioration or malfunction of equipment or structures revealed by the inspection will be remedied on a timely basis, must be described in the application.

6) Inspection Log (264.15(d))

The exhibit presented as the "inspection schedule" appears to an be inspection log not an inspection schedule. If this is the case, the log needs to be revised to include provisions for recording the date of repairs or remedial action, and a listing of which specific equipment or structures are to be inspected.

7) Preventive Procedures, Structures and Equipment (270.14(a)(8))

The application must describe procedures, structures and equipment used in the tank and drum storage area to:

a. prevent hazards in loading/unloading waste (only tank transfer is covered)

b. Prevent runoff from hazardous waste handling areas to other areas

c. Prevent contamination of water supplies

d. mitigate effects of equipment failure and power outages (i.e., waste feed shutoff systems or emergency lighting)

e. prevent undue exposure of personnel to hazardous waste (i.e., ventilation equipment, protective clothing, etc.)

8) Prevention of Ignition or Reaction of Ignitable, Reactive or Incompatible Wastes (270.14(b)(a), 270.15(d) 264.17

Precautions to Prevent Ignition or Reaction of Ignitable or Reactive Waste (270.14(b)(9) and 264.17(a)

Since a list of the wastes stored at the facility is not provided, it is not possible to ascertain whether they are ignitable or reactive. If wastes with these characteristics are stored, then they must be listed and precautions for preventing ignition of the wastes handled must be described. If smoking and open flames are confined to specifically designated areas when ignitable or reactive wastes are being handled, this procedure must be described. "No Smoking" signs must be conspicuously placed wherever there is such a hazard and the applicant must document that there are such signs.

9) General Precautions (270.14(b)(9), 264.17(b))

Once again, if the facility stores ignitable or reactive wastes, the procedures for handling these wastes and measures taken to prevent the mixing of incompatible wastes must be described.

10. Management of Ignitable or Reactive Wastes in Containers (270.15(c) and 264.176)

The application must demonstrate through the use of sketches, drawings or data, how containers of ignitable or reactive wastes are located at least 50 feet from the site property line.

11. Incompatible Wastes in Containers (270.15(e) and 264.177

Included in the application must be a description of the specific controls and/or practices used to ensure that incompatible wastes and other materials that are incompatible are not placed in the same container unless precau-

tions are taken to prevent reaction. The application must include any documentation of compliance based on references to published scientific or engineering literature, data from trial tests, waste analyses, or the results of the treatment of similar wastes by a comparable treatment process and under similar operating conditions.

The application must also discuss how storage containers holding a hazardous waste incompatible with any other waste or materials that are stored nearby in other containers are separated or protected from the other materials by means of a dike, berm, wall, or other structure. Include a drawing to show separation of incompatible wastes.

E. CONTINGENCY PLAN

1) The information presented in Appendix V must be organized in order to stand alone as a separate document. As it stands, reporting procedures and other emergency procedures are unclear.

The plan must begin with a facility description, providing the name/location of the facility, the operators name, a site plan and description of operations (264.52(b)).

2) Implementation of Contingency Plan (264.52(a), 264.56(d))

The Contingency Plan presented in Appendix V states only the conditions which might require an evacuation. Further discussion is necessary on the conditions requiring implementation of procedures in emergency situations which may not necessarily require evacuation but are considered to be an "emergency".

3) Emergency Response Procedures (264.52, 264.56 and 264.171, 264.194(c), 264.255 and 264.258)

The plan needs to have a methodology for immediate notification of state/local agencies in an emergency. The plan must describe the procedures for:

- identification of hazardous materials involved in an emergency
- prevention of reoccurence or spread of fires, explosions or releases.
- preventing incompatible wastes from being treated, stored or disposed of in the affected areas.

- ensuring all emergency equipment is clean/fit for use before operations are resumed.
- repair or dispose of any damaged containers.
- availability of machinery, equipment, and personnel to be used as cleanup resources for container or tank spills or leakages.
- tank spill or leakage from incidences such as overfill, leaks in containment dikes, leaks from pump seals and maintenance, etc.

4) Emergency Equipment (264.52(e))

The application must describe where the emergency equipment is located within the facility and what are the capacities/capabilities of the various pieces of equipment.

5) Coordination Agreements (264.52(c), 264.37)

The plan must describe agreements made with local agencies, contractors, hospitals involved in emergency response. While emergency contacts are listed, a more detailed description is needed of what is termed "emergency response and assistance has been arranged with..." What are these arragements? What emergency response information has been made available to the local agencies, contractors and hospitals?

6) Required Reports (264.56(d), 264.56(i) and 264.73(b)(4)

The contingency plan must discuss provisions for submission of written reports of emergency incidents within 15 days of occurrence and the maintenance of records identifying the time, date and details of any emergency incident.

F. PERSONNEL TRAINING

1) Job Titles and Duties (264.16(d)(1) and (d)(2))

The application lists job titles and required training but it must also list the name and duties of each employee who receives training.

2) Training Content, Frequency and Technique (264.16(c) and (d)(3))

The application must include discussion of the following required aspects of a training program:

- personnel safety training

- decontamination procedures
- hazardous nature of each waste

3) Training Director (264.16(a)(2))

The training director's experience and qualifications must be specified in the application in order to show that the training program is directed by a person trained in hazardous waste management.

4) Implementation of Training Program (264.16(b) and (d)(4))

The application must indicate that training records are being kept until closure or that former employee records are being kept for 3 years after they have left.

G. CLOSURE PLANS, POST CLOSURE PLANS AND FINANCIAL REQUIREMENTS

Closure Plan (270.14(b)(13) and 264.112)

The Closure Plan submitted in the application has several deficiencies which are described in the following paragraphs:

1) Closure Performance Standard (264.111)

The description of closure activities must show that the facility will be closed in a manner that minimizes the need for further maintenance and controls; minimizes or eliminates threats to human health and the environment; and avoids post-closure escape of hazardous waste, hazardous waste constituents, leachate, contaminated rainfall, or waste decomposition products to ground or surface waters or to the atmosphere.

2) Partial and Final Closure Activities (264.112(a)(1)

The application must include the following information:

a) date of final closure or an estimate of the approximate date

3) Inventory Removal, Disposal, or Decontamination of Equipment (264.112(a)(3))

A description of the steps needed to decontaminate facility equipment during final closure, the labor needed to perform decontamination and the criteria for determining contamination must be included in the application. Each piece of equipment and/or structures should be named and procedures for cleaning then described.

The application must also describe:

- The amount of contaminated soil to be disposed of on and off-site (and the criteria used to determine the amount of contaminated soil).

- The method for processing, treating or disposing of residues from decontamination.

- The testing program to be used to determine if decontamination has been effective for each piece of equipment and/or structure and surrounding soils.

- The method of transport to the disposal site, the distance to the disposal site and the final disposal method (e.g. facility type such as a secure landfill).

4) Closure of Containers (264.178)

The application does not detail: 1) how containers and containment system will be decontaminated at closure and how effectiveness of decontamination will be shown; 2) safety precautions and procedures which will be used during closure; and 3) how containers containment linings or decontamination washes will be handled and disposed of.

5) Closure of Tanks (264.197)

There is not enough detail on how the hazardous waste will be removed from the tanks, associated piping and discharge equipment and how all components will be decontaminated.

6) Schedule for Closure (264.112(a)(4))

As discussed previously, the applicant must provide an estimate of the expected year of closure. The closure schedule must include the total time required to close the facility and a milestone schedule depicting the time required for intervening closure activities. The milestone schedule should:

a) provide for several periodic inspections during the closure period

b) show that all hazardous waste will be treated, removed from the site, or disposed of on the site within 90 days of receipt of the final volume of waste and that closure activities wil be completed within 180 days of receipt of the final volume of waste.

7) Closure Cost Estimate (270.14(b)(15) and 264.142)

The closure cost estiamte must be dated and it must be stated in the application that the estimate given in current dollars. The cost of closure must be estimated on the following basis: the cost estimate must be equal to the cost of closure at the point in the facility's life where it would make closure the most expensive.

Additional details are needed to justify the cost estimates shown, and a discussion/cost estimate of removal of contaminated soil at the time of closure must be included. The closure cost estimate must also include a statement indicating that the estimate will be adjusted annually as required and that adjusted estimates will be kept on file at the facility.